

Alaska Challenges

Icing in Nome



Flooding in Koyukok



Alaska Technical Assistance

Ahtna – Energy Summits, 2009 & 2012

- Regional Planning
- Partnerships
- Biomass
- Hydro
- Wind
- Energy Efficiency
- Weatherization
- Utility Involvement
- Econ Development
- Leadership



Kongiganek, AK -- Chaninik Wind Group



- Excellent Wind Resource
- High Penetration Wind-Diesel, including wind-to-heat, storage, and “diesel off”
- Smart grid application
- Local training & capacity building
- Village thermal modeling

- Multi-Village Effort (Kongiganek, Kwigillingok, Tuntutuliak, Kipnuk)
- Alternative Business Model (Aggregated Energy & Transport Services Company)
- University Collaboration



Performance Monitoring & Verification

Anaktuvuk Pass – High Arctic

- Near Net Zero Residential Construction
- Traditional Design Components
- ~ 125 gallons heating fuel annually
- Ongoing system Improvements & education of occupants
- CCHRC & Housing Authority



Ugashik Traditional Village

- Wind-PV-Diesel-Battery Hybrid
- Minimize Diesel Run-time
- What is best investment?
- Remote “black box” Monitoring
- Partnership with Tribe, University, AK Energy Authority

Alaska Opportunities

St. Paul Island



Ruby – Yukon River



Village Biomass Thermal, aka Diesel Reduction



- >90% diesel dependence
- Heat & electricity
- Woody biomass in interior & southeast
- Fort Yukon, Nenana, Tanana, Port Graham, many others
- Community buildings drive the process

